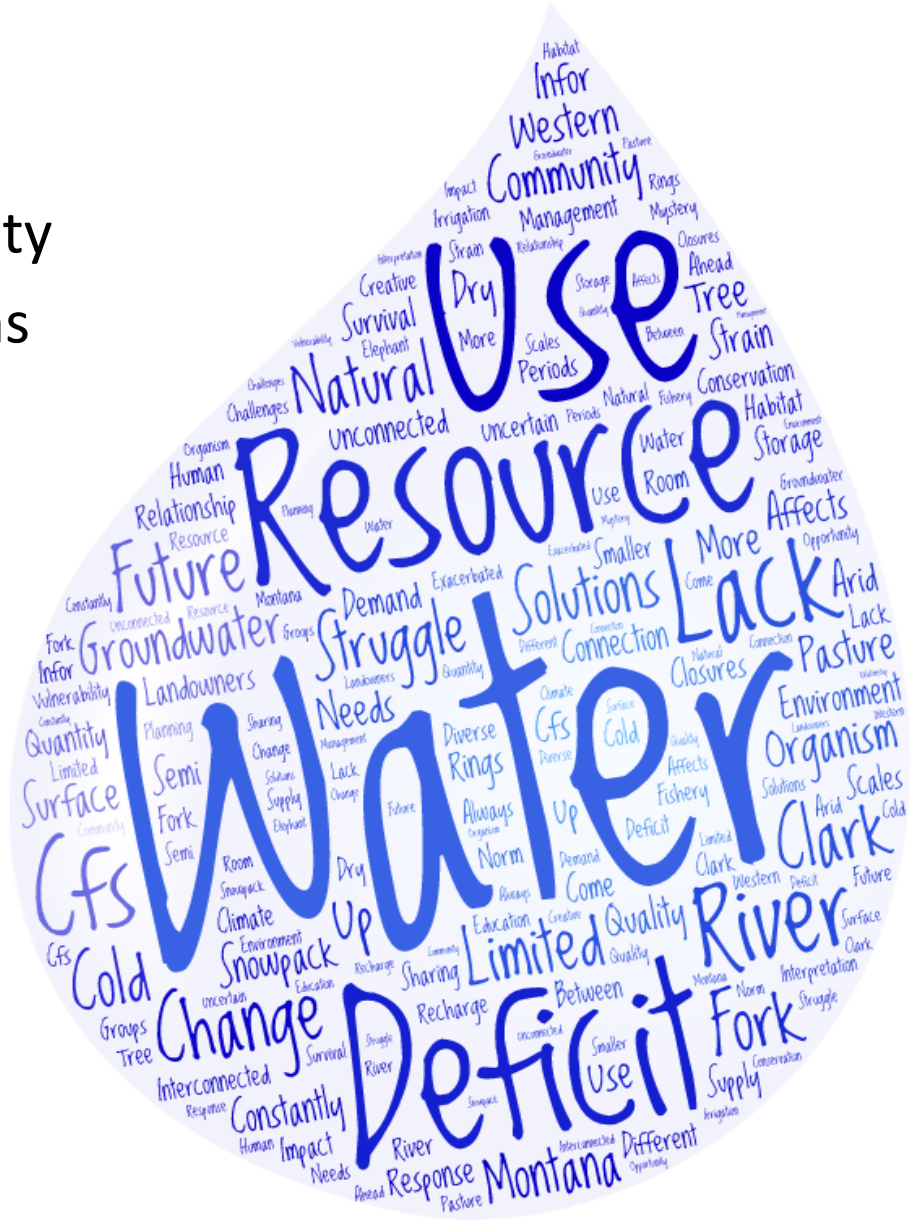
Governor's Drought and Water Supply Advisory Committee

2016 Community Drought Forums Summary



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Summary of Feedback:

Generally speaking the 2016 Community Drought Forums highlighted three major findings:

(1) Montana is extremely diverse in its climate, water availability concerns and water users.
(2) Water management is an inherently local activity characterized by unique geographies, histories, and personalities.
(3) Everyone has a different definition of drought and how it affects their lives.

Some of the key takeaways included the importance of early warning and response and coupling that effort with long-term mitigation strategies to increase resilience to drought. The attendees also emphasized the importance of good communication and information sharing. They also highlighted the importance of building partnerships and trust.

Some of the advice the attendees offered in regards to updating the Montana Drought Response Plan included connecting drought concerns at both the tributary and mainstem levels of a river system. They emphasized the importance of water monitoring (both quantity and quality), and water right decree enforcement through water commissioners. They suggested creating a flexible, iterative plan that can address shortfalls identified during any given drought. They identified the need to define local and state roles and develop a way to better synthesize the two. Finally, they stressed the importance of education at the citizen level, particularly as Montana's population continues to grow.

Feedback Collected:

Havre (August 16, 2016 – Havre City Hall):

- Total Attendance: 5
- Who came to the Drought Forum?
  - Municipal water supplier, DNRC Hydrologist, DNRC Irrigation Development Engineer, State Legislature Candidate, Blaine County Conservation District.
- Havre Realities:
  - Havre doesn't have growth.
  - Milk past Chinook has a very wide floodplain.
  - Storage is pricey.
  - Area is characterized by clay soils.
- Concern that local efforts are adequate:
  - Irrigation is primary water consumer – 95% of surface water goes to irrigation, but the Milk River Irrigation Project only pays an Operation and Management fee for the water. There is no incentive to conserve, which is a bone of contention with municipal water use.

- The Joint Board of Control for the Milk River has gotten better, but in the beginning there was a lot of mistrust about working between the upper and lower districts. Issues such as water measurement and who would pay were very contentious. Now they budget and that seems to work pretty well. They also hired a specialist to serve as the interface between the Bureau of Reclamation (BOR) and the board which has allowed communication to be more productive. Now they can tweak Fresno and allow for things like carry-over storage. The trust building took a long time. Communication and collaboration between the groups was key.
- It is important to recognize the agricultural lifestyle for the water users in Havre and the surrounding area. Meetings must be working meetings, they cannot be just for the sake of having a meeting. Information shared must be meaningful and backed up by facts.
- Rural economies need a reliable and affordable water supply.
- Using water gages to set triggers and thresholds is a good idea.
- The weather changes rapidly around Havre – as late as April of 2016 they were in a drought after the below normal winter precipitation.
- While Fresno is an insurance policy against drought, it is silting in and storage and infrastructure failure are a major concern.
- The healthy soils initiative from the NRCS with its emphasis on winter cover crops is a good program.
- Information sharing is key.
- Water Planning Conservation Guide produced by the Bureau of Reclamation may be a good source of information.
- Water measurement and establishing water budgets should be promoted and done.
- The state should give local communities the tools to plan for drought and it should be a tiered approach, with what steps are needed at each tier. Forecasts should be included in the tiers with what activity should happen well in advance of any major concern.
- There should be mutual aid for emergency planning and county-level coordination.
- Identify what might be any limitations for response.
- Have the conversation ahead of time.
- Key groups to engage in the Havre area: Milk River Watershed Group, Walleyes Unlimited, Trout Unlimited, Elks Foundation, Pheasants Forever, Conservation Districts
- Define terms like “conservation” – when there are restrictions, what do they actually mean? Does “beneficial use” come into question during such times?
- What authority do local governments have to direct the appropriate use of water – county/municipal ordinances? County authority can be more limited than municipal authority, which could limit enforcement.
- The American Society of Civil Engineers (ASCE) rated Montana a C- for their infrastructure – how can the updated Drought Management Plan address

improving this score? (more here: http://www.infrastructurereportcard.org/montana/montana-overview/)

Billings (9/7/2016 – Billings Public Library):

- Total Attendance: 20
- Who came to the Drought Forum?
  - Department of Emergency Services, MSU Extension, Sen. Steve Daines representative, Fergus County Commissioner, FWP, Trout Unlimited, Big Horn River Alliance, DNRC hydrologists and water planners, Yellowstone Conservation District, Fishermen, Forecasters, Musselshell River Coalition, Stillwater County Commissioner, Residential Landscaper, Producer, Public Works, Floodplain Coordinator, Drinking Water Manager, Carbon County Commissioner, Yellowstone County Commissioner, Future West, Media, Water Rights Holder.
- How to Improve?
  - Low water flow times – how to manage? Early warning – early response.
  - Local drought plans.
  - Emergency response coupled with built in resilience options.
  - Identify how to be proactive.
  - Nutrition of grass is a concern to agricultural producers that often gets overlooked. Not just will the grass grow, but is it actually producing the nutrients cattle need?
  - Create incentives for landscaping conservation measures like xeriscaping and using drought-tolerant plants.
  - Water temperatures are a big factor – using riparian habitat health improvement is a good approach.
  - Irrigation user buy-in – have to have water right holders be part of the conversation and solutions.
  - Community-wide shared sacrifice at agreed upon triggers.
  - There are issues of scale in determining what actions should be taken and where. Identify carefully what needs to happen where, at what time, by whom and with what resources.
  - Irrigation efficiency
  - Water right holder voluntary participation is key.
  - Water measurement
  - Water commissioners
  - Triggers for cutback commitments.
  - Using tools from national and state to build local plans.
  - Drought coordinators
  - Identifying concerns as they pertain to both tributaries and mainstems.
  - Create a strategy for organized collaboration and coordination.
  - Create a method for education and information sharing.
  - Transfer knowledge and stories appropriately – create a succession plan for long-term consistency.

- Cover people's concern over abandonment of their water rights if they should participate in a drought management plan at the local level.
- Consider the impacts of drought away from rivers – farmers and ranchers are excellent stewards of the land and will be motivated to take care of their soil and groundwater resources.
- From an emergency perspective – find secured "dip sources" for firefighting (who sets "dip restrictions" during times of low flow?)
- Follow Conservation District recommended management practices
- Be aware of how Conservation District reserved water is allocated – is there a potential to partner on this?
- Water savings through eradication of noxious/invasive species (salt cedar, Russian olive removal)
- Hold the feds and state accountable
    - Look for options to co-manage
    - Build relationships and trust
    - Big Horn is an example – loss
- Integrate local weather stations for drought designations.
- Targeted meetings with stakeholders while developing the Drought Management Plan – meet with MACD, Stockgrowers Association, Farm Bureau, MACO, Grazing and Irrigation Districts, State Water Resources Advisory Board

Bozeman (9/8/2016 – Bozeman Public Library):

- Total Attendance: 19
- Who came to the Drought Forum?
    - Big Sky Watershed Corps, National Weather Service, Retiree, Engineer, Water/wastewater operator, Farmer, Association of Gallatin Agricultural Irrigators (AGAI), Legislators, Media, Water right holder, FWP, Future West, City of Bozeman, Public Water Supply Operator, Student at Montana State University (MSU), Professor at MSU, Upper Missouri Watershed member, Gallatin County Commissioner, Attroney, Trout Unlimited, Montana Aquatic Resources Services (MARS), The Nature Conservancy, Montana Watercourse, Montana Climate Assessment
- What is Drought?
    - Assessment
    - Effects everyone
    - Forest and rangeland management
    - Water rights interface
    - Balance between wise water use and habitat
    - Aging infrastructure and budgets
    - Meterologic – integrated management and planning ahead
    - Human/socioeconomic – freshwater conservation, education and climate change
    - Headwaters and the ability to adapt headwaters to better manage for consequences from drought through streambed, wetland and floodplain restoration efforts.

- How can the State improve the Drought Management Plan?
  - Define local and how to organize a "Local Drought Advisory Committee" and track down any previous efforts.
  - Create a flexible template for Local Drought Management Plans that have malleable components, but would provide a road map and things not to overlook.
  - Make sure outreach is an inclusive process and work hard to identify community leaders who must be at the table.
  - Create a simple process for information exchange and allocation of funding sources.
  - Gather local input
  - Have the planning process be iterative so that updates can occur at various intervals.
  - Be sure to highlight the importance of the agricultural community
    - Facilitate education and communication between urban, suburban and rural communities.
  - Managing for water sustainability means understanding conditions as well as the tools available.
    - Monitoring, metering, measuring in addition to region-wide mitigation options.
    - Need to look beyond triggers and shared sacrifice to true resilient options.
    - Response in crisis vs. resilience – long-term strategies and mitigation
  - DATA – create a one-stop source for communities to use to monitor, assess and respond to drought.
  - Create a structure for communication and funding resources
  - Early warning
  - Response in times of low flow prior to drought
  - Mitigate low flow conditions vs. emergency drought response.
  - Timing of information/response – it is hard to anticipate consequences.
  - Use technology more effectively to share local info
  - Signage and demonstration projects to show when flows are low
  - Public communication campaign
  - See Bozeman's Drought Management Plan

Missoula (9/12/2016, Payne Family Native American Center, University of Montana):

- Total Attendance: 27
- Who came to the Drought Forum?
  - Forestry professionals
  - Clark Fork Coalition
  - Environmental Studies
  - Geography Professor
  - Lolo Watershed Group
  - Sheep Rancher

- Soil and Water Conservation Districts of Montana
- University of Montana Professors and students
- Water Quality Professionals
- FWP
- Community planners
- Fisheries managers
- Water conservationists
- Graduate students
- American Rivers
- Stream restoration professionals
- Bitterroot Water Forum
- Montana Watershed Coordinating Council
- Big Sky Watershed Corps
- State Climate Office
- Information Scientists
- Watershed hydrologists and geologists
- NOAA/NWS
- DNRC
- Americorps
- Faculty
- Clark Fork Task Force (former representative)
- Blackfoot Challenge/Drought Coordinator

- What is Drought?
  - A deficit of water for organism use
  - 2.5 cfs in Clark Fork
  - Lack of snowpack
  - Constantly changing environment
  - Western US
  - Groundwater/Surface water relationship
  - Lack of cold water
  - Pasture management
  - A deficit of water that affects landowners
  - Water quality and water quantity connection
  - Unconnected rivers
  - Struggle for survival
  - Community response/solutions
  - Conservation
  - Natural storage
  - Interconnected uses and needs
  - Limited resources or resource strain
  - River closures
  - More demand for a limited supply
  - Infor sharing at different scales
  - Groundwater recharge

- Uncertain future for Montana's water resources
- Impact and interpretation of vulnerability
- Smaller tree rings
- Struggle between fishery habitat and irrigation
- Challenges for human and natural communities
- Exacerbated by climate change, but semi-arid Montana has always had dry periods
- Opportunity to get creative and have diverse groups come up with solutions
- Planning ahead
- The elephant in the room
- The future
- The norm
- A mystery
- An education

- How can the State improve Drought Management?
  - Representation at DWSAC monthly meetings by watershed councils and groups to provide field reports and local context.
  - Find the synthesis between local and state interests. Go have coffee with folks and get to know each other.
  - Identify what needs to be discussed at which level and what can be accomplished.
  - Identify where state coordination is helpful and where it is better to be hands off.
  - Provide funding for local efforts
  - Watershed groups are a great way to funnel funding and information as they are a trusted partner within the community.
  - Education and information sharing
  - Communication
  - Drought assessment needs to be more than an administrative exercise
  - Funding triggers at federal level may come too late – need to build incentives for local mitigation efforts
  - Inter-agency and inter-community coordination
  - Be clear about the state role
    - Coordination with federal partners?
    - Coordination with local entities?
  - Build trust – water is a touchy subject and government is often seen as "big brother watching." Don't upend the applecart at the local level.
  - Grassroots oriented planning and priority setting
  - Messaging is critical
  - Build partnerships and maintain an inclusive working process
  - Public relations are key
  - Develop relationships for the long-run – this takes time.
  - Structure and protection from ebb and flow of 4-year political cycle.
  - Funding basin councils – implementation

- How to take best advantage of scarce resources?
- Make technical info generally accessible – boiling the data down
- Youth organization educational efforts (see work safe example from Canada and the Watershed Education Network in Montana)
- Education at citizen level with land use development and population increases
    - Where does you water come from and where does it go?
- Resource-specific chapters within the plan that have their own specified triggers that considers drought from multiple perspectives.
- Living document